

ABSTRACT

An external rotor gas turbine engine to provide direct high speed thrust or to provide rotational shaft work to power electrical generators or aircraft engine fans. To supply compressed air to the rotating inlet of the turbine or combustor, the dynamic compressor has an external rotor journaled onto an internal stator. The entire outside of the engine rotates allowing for a sealless high pressure rotating air source to the exoskeletal turbine. For the prime mover embodiment, the residual kinetic energy from the rotating nozzles may be recovered by an impulse turbine. For the high speed propulsion engine, the impulse turbine is replaced with stator vanes to redirect the momentum in an axial direction.